

HOW YOUR BRAIN UNDERSTANDS WHAT YOUR EAR HEARS		
Ohio Academic Standards for Life Science - Grade 6		
Lesson	Standard	Description
4, 5	1	Explain that many of the basic functions of organisms are carried out by or within cells and are similar in all organisms.
1, 4, 5	2	Explain that multicellular organisms have a variety of specialized cells, tissues, organs and organ systems that perform specialized functions.
Ohio Academic Standards for Physical Science - Grade 7		
4, 5	3	Identify different forms of energy (e.g., electrical, mechanical, chemical, thermal, nuclear, radiant and acoustic).
4, 5	5	Trace energy transformation in a simple closed system (e.g., a flashlight).
Ohio Academic Standards for Science and Technology – Grade 7		
4, 5	1	Explain how needs, attitudes and values influence the direction of technological development in various cultures.
4, 5	2	Describe how decisions to develop and use technologies often put environmental and economic concerns in direct competition with each other.
4, 5	3	Recognize that science can only answer some questions and technology can only solve some human problems.
Ohio Academic Standards for Scientific Inquiry – Grade 7		
3, 4	1	Explain that variables and controls can affect the results of an investigation and that ideally one variable should be tested at a time; however it is not always possible to control all variables.
3, 4	2	Identify simple independent and dependent variables.
1, 2, 3, 4	3	Formulate and identify questions to guide scientific investigations that connect to science concepts and can be answered through scientific investigations.
4	4	Choose the appropriate tools and instruments and use relevant safety procedures to complete scientific investigations.
2, 4, 5	5	Analyze alternative scientific explanations and predictions and recognize that there may be more than one good way to interpret a given set of data.
4	6	Identify faulty reasoning and statements that go beyond the evidence or misinterpret the evidence.

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All lessons	7	Use graphs, tables and charts to study physical phenomena and infer mathematical relationships between variables (e.g., speed and density).
Ohio Academic Standards for Scientific Ways of Knowing – Grade 7		
3, 4, 5	3	Describe how the work of science requires a variety of human abilities and qualities that are helpful in daily life (e.g., reasoning, creativity, skepticism and openness).
Ohio Academic Standards for English Language Arts – Grade 7		
Lesson	Standard	Description
3, 4	Vocabulary 1	Define the meaning of unknown words through context clues and the author’s use of comparison, contrast, definition, restatement and example.
3, 4, 5	Reading Process 4	Summarize the information in texts, using key ideas, supporting details and referencing gaps or contradictions.
2, 3, 4, 5	Reading Applications 5	Analyze information found in maps, charts, tables, graphs, diagrams, cutaways and overlays.
3, 4, 5	Writing Process 6	Organize writing with an effective and engaging introduction, body and a conclusion that summarizes, extends or elaborates on points or ideas in the writing.
3, 4, 5	Writing Process 8	Group related ideas into paragraphs, including topic sentences following paragraph form, and maintain a consistent focus across paragraphs.
2, 3, 4, 5	Writing Process 12	Add and delete information and details to better elaborate on a stated central idea and to more effectively accomplish purpose
3, 5	Writing Applications 4	Write informational essays or reports, including research, that present a literal understanding of the topic, include specific facts, details and examples from multiple sources, and create an organizing structure appropriate to the purpose, audience and context.
5	Writing Applications 5	Write persuasive essays that establish a clear position and include relevant information to support ideas.
5	Research 1	Generate a topic, assigned or personal interest, and open-ended questions for research and develop a plan for gathering information.
2, 3, 4, 5	Research 5	Analyze and organize important information, and select appropriate sources to support central ideas, concepts and themes.

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2, 3, 4, 5	Research 8	Use a variety of communication techniques, including oral, visual, written or multimedia reports, to present information that supports a clear position with organized and relevant evidence about the topic or research question.
Ohio Academic Standards for Mathematics – Grade 7		
Lesson	Standard	Description
3	Number, Number Sense, and Operations 7	Solve problems using the appropriate form of a rational number (fraction, decimal or percent).
3	Measurement 4	Solve problems involving proportional relationships and scale factors; e.g., scale models that require unit conversions within the same measurement system.
3, 5	Measurement 5	Analyze problem situations involving measurement concepts, select appropriate strategies, and use an organized approach to solve narrative and increasingly complex problems.
3, 4, 5	Patterns, Functions and Algebra 1	Represent and analyze patterns, rules and functions with words, tables, graphs and simple variable expressions.
3	Patterns, Functions and Algebra 5	Represent linear equations by plotting points in the coordinate plane.
3	Patterns, Functions and Algebra 8	Use formulas in problem-solving situations.
3, 5	Patterns, Functions and Algebra 10	Analyze linear and simple nonlinear relationships to explain how a change in one variable results in the change of another.
3, 5	Data Analysis and Probability 8	Make predictions based on theoretical probabilities, design and conduct an experiment to test the predictions, compare actual results to predicted results, and explain differences.